

## BRIEFER ARTICLES

### PYRENOTHRIX NIGRA, GEN. ET SP. NOV.

(WITH FOUR FIGURES)

The material upon which the new genus and species of lichens here described is based was collected by Professor ROLAND THAXTER, of Harvard University, in Florida in 1897. I wish to acknowledge my indebtedness to Professor THAXTER for his kindness in placing the material at my disposal for study and description. On account of the distinctive combination of a byssine thallus and a pyrenomycetous fruit this new genus may appropriately be named as follows:

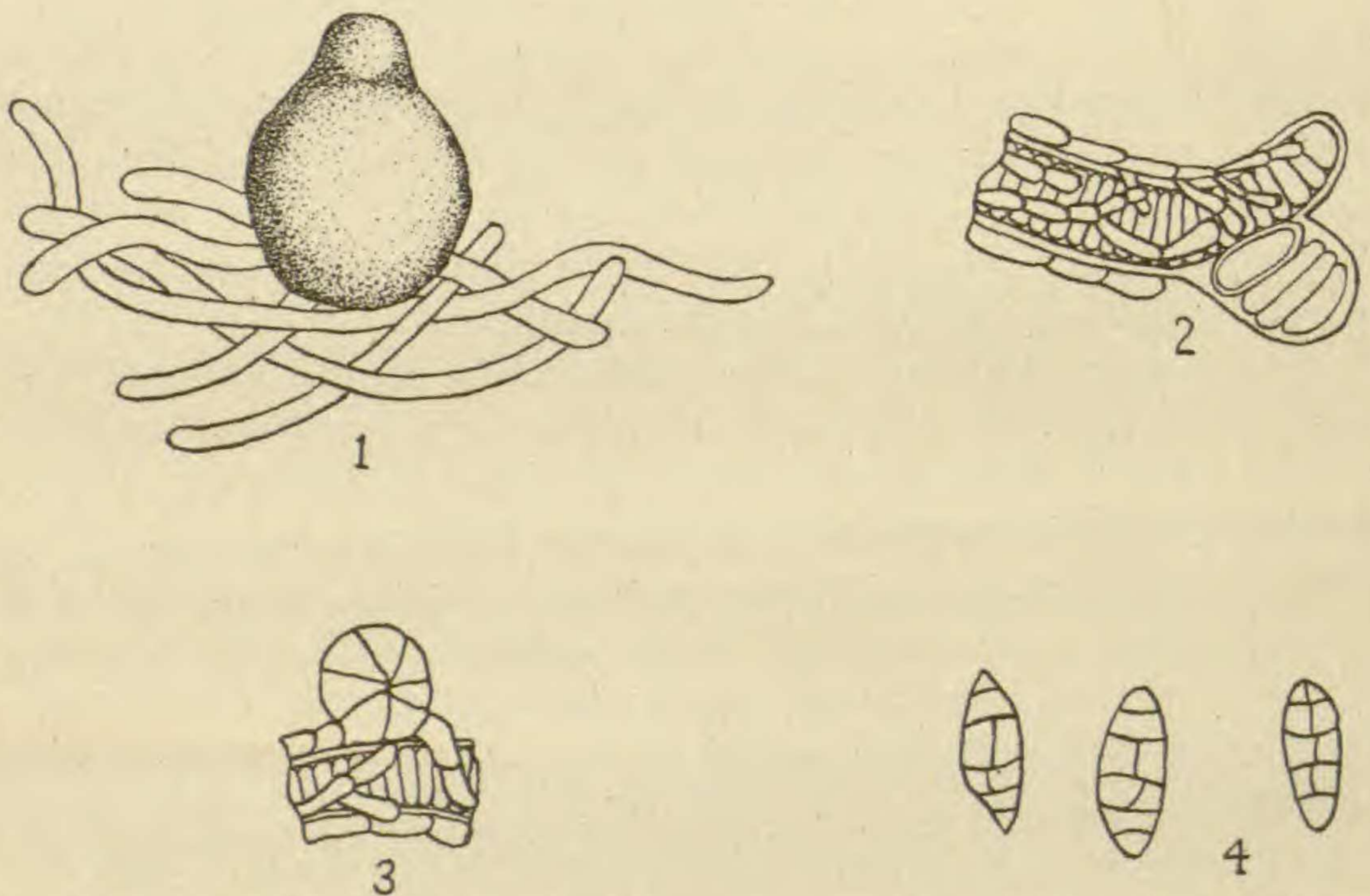
**Pyrenothrix**, gen. nov.—Thallus crustaceo-byssinus ecorticatus substrato arcte adnatus gelatinosus, ex hyphis tenuibus leptodermaticis crebre septatis ramosis, filamenta gonidiorum dense obducentibus. Gonidia ad species *Scytonemae* pertinentia filamentis implexis. Perithecia tenues coriacea pseudoparenchymatica, integra simplices recta nuda nigrescentia, in gonidiis sessilia nunquam immersa, ostiolis parum distinctis. Paraphyses persistentes simplices filiformes. Asci clavati. Sporae fuligineo-nigricantes murali-divisae cellulis subcubicis. Spermagonia non visa.

This new genus, by reason of having gonidia of the *Scytonema* type and fruit of the perithecial form (figs. 1, 2), would appear to belong most naturally to the family Pyrenidiaceae, as constituted by ZAHLBRUCKNER (ENGLER and PRANTL, Die Natürlichen Pflanzenfamilien, Teil I, Abt. 1, p. 76), but differs from all of the genera of that family hitherto described in the byssine character of the thallus (fig. 1), and in the muriform spores (fig. 4). When examined under the microscope, the structure of the thallus and the relation of hyphae and gonidia are seen to be exactly that of *Coenogonium* (fig. 2). Without entering into the much debated question, "What is a lichen?" it may be said that if *Coenogonium* is a lichen then *Pyrenothrix* is a lichen, as the two are strictly analogous. That the perithecia are not those of a secondary parasite or merely accidentally associated with the filaments of the alga is proved by the observation of early stages in their development showing their origin from the web of hyphae that envelop the gonidia (fig. 3).

**Pyrenothrix nigra**, sp. nov.—Thallus fusco-nigricans byssinus substrato arcte adnatus late effusus non limitatus, sicco nec flaccido nec



spongioso, madefacto molle gelatinoso, ex hyphis tenuibus ( $3-4\ \mu$  crassis) septatis torulosis crebre ramosis, filamenta gonidiorum crebre obducen-  
tibus; gonidiis Scytonematicis filamentis, crassitudine  $13-18\ \mu$ , vaginis  
tenuis homogeneis non lamellosis, flexuosis implexis, rarius pseudora-  
mosis. Perithecia minuta, altit.  $200-225\ \mu$ , crassit.  $160-175\ \mu$ , pyri-  
formes collo crasso breveque, primum fuliginea demum nigrescentia,  
ostiolo minute parum distincto. Paraphyses persistentes simplices fili-  
formes sat flexuosae. Asci clavatae, 8-spori. Sporae fumoso-nigricantes,



FIGS. 1-4.—Fig 1, habit sketch,  $\times 41$ ; Fig. 2, end of gonidial filament, showing false branch and some of enveloping hyphae (part omitted for clearness),  $\times 385$ ; fig. 3, early stage in formation of perithecium,  $\times 385$ ; fig. 4, spores,  $\times 385$ .

oblongae vel late fusiformes, muriformes pauciloculares, 5-6 loculares, 2 locellati,  $17-20 \times 6-9\ \mu$ .

Thallus brownish-black, spreading over the substratum without definite limits and closely adnate, byssine, when wet soft and gelatinous, when dry harsh and not at all spongy; made up of gonidia of the *Scytonema* type, with flexuose, intertangled filaments,  $13-18\ \mu$  thick, with a thin, homogeneous sheath and infrequent false branches; the filaments densely covered with septate, torulose, branched hyphae,  $3-4\ \mu$  in thickness. Perithecia minute,  $200-225\ \mu$  high and  $160-175\ \mu$  thick, pyriform with a short, thick neck, and minute, indistinct ostiole; the wall



thin, coriaceous, pseudoparenchymatous, at first fuliginous-brown, then blackening. Paraphyses persistent, simple, filiform. Asci clavate, 8-spored. Spores smoky-black, oblong or broadly fusiform, muriform, 5-6 locular, with some of the cells once divided,  $17-20 \times 6-9 \mu$ .

Abundant on the bark of scrub oaks at West Palm Beach, Florida, December 1897 (type!); and on living Oleander at Cocoanut Grove, Florida, November 1897; collected by Professor ROLAND THAXTER. Type specimen in the Cryptogamic Herbarium of Harvard University.—LINCOLN W. RIDDLE, *Wellesley College, Wellesley, Mass.*